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EXAMINER

GONZALEZ, JULIO C

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/622,924

Applicant(s)

GRINSTED ET AL.

Examiner

Julio C. Gonzalez

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Water generator oscillating in vertical direction due to rapid flow of fluid.

Drawings

2. The drawings are objected to because the figure above figure 8 is not labeled, the figure next to figure 13 is not labeled, the figure above figure 14 is not labeled, the figure above figure 15 is not labeled and the figure above figure 16 is not labeled. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: in figure 18, reference # 58; in the figure above figure 6, reference # 14; . A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

✓ 4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "10" has been used to designate both member and buoyant tank; character "16" has been used to designate both support column and monopile; character "20" has been used to designate both plane bearing and bearing strips; character "22" has been used to designate both control member and hydroplanes; character "26" has been used to designate current, arrow and water flow; character "40" has been used to designate both control chamber and prime mover; character 62 has been used to designate both arrow and drag; character 44 has been used to designate control chamber and generating chamber; characters 22 & 10 has been used to designate member and control member. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

✓ 5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "44" and "40" have both been used to designate control chamber. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

✓ 6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the control member comprising a rotating cylindrical member whose direction of rotation can be reversed as

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disclosed in claim 44 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- X 8. Claims 1-44 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The disclosure of the invention does not provide as to how electricity will be generated.

Is it due to the vertical motion of the shaft 42, which in turn will make the coil and the magnet create a magnetic field? How the generator will switch places by been on the top of the prime mover 40 (see figure 16) and then in figure 15 the generator is below the prime mover?

X Also, the disclosure mentions that the buoyant tank is below the water, yet in figure 1, the buoyant is above the surface.

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✓ Moreover, how will the turbine compress and decompress the air if the buoyant tank is below the surface water? Where is the air coming from?

What is the purpose of the turbines? Does the compression and decompression of air aid in the vertical movement? What happens when the buoyant tank is below the surface water? Do the turbines still compress and decompress air?

What is the meaning of the pipes in figure 18 with respect to the vertical movement and buoyant tank 10 of figure 1? Where the pipes could be placed in figure 1? What type of generator would function with the pipes? How the storage member knows when to drain the water down the pipe 56?

Also, about the wind generator disclosed in claim 19, will the wind generator function like the water generator? From figure 19, it seems like if the cylinder 61 will not make enough pressure to move vertically the buoyant tank 10. Where is the generator? How is the invention disclosed in figure 1 link to the invention disclosed in figure 19 and the invention of figure 18? From the disclosure, it seems like if they are different independent inventions.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 29, 30, 31 and 39 provide for the use of a wind generator and water running through pipes, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass.

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A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 29, 30, 31 and 39 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

11. Claims 1-44 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: The relationship between the water prime mover, the wind prime mover, the coil and magnet generator and the fluid going up/down the pipes in figure 18.

12. Claims 1-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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X { In claim 3, does the water travel faster over any portion of the surface of the body?

Which body is it? Surface body of water or surface water of the prime mover? What is meant by the control members been "positioned at that portion of the surface of the body"? Which "portion" of the body is it? Any portion?

X { In claim 7, how are the control members reversed? Is the reversed movement from left to right? Up and down reversion? Are the control members counter rotating? Which is the "second fixed member"? The body of the prime mover? The control member?

X { In claim 8, what is meant by been "near a maximum"? How the velocity is measured to know the maximum velocity? What is spaced "laterally from it"? What is meant by "it"? The water? The control member? The prime mover? The buoyant?

✓ { In claim 10, what is meant by the control member been pivotable in its entirety? Are the control members rotating all the time? What is the central pivot point?

✓ { In claim 11, what is meant by the control members been pivotable about an edge of that "member"? Is the "member" the same as the control member? Is seem like if the control members are not pivotable in its entirety as disclosed in claim 10, but just "about an edge" as disclosed in claim 11.

✓ { In claim 12, what is "passing through the member"? What is meant by the "member"? Which "member"? Control member? Buoyant member, etc?

✓ { In claim 15, the control members (flaps) are disclosed to have a rotatable cylindrical structure? Where are these "cylindrical structures" in the drawings? Are the cylindrical structures the ducts 25 in figure 1?

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✓ In claim 26, what is considered for the prime mover to be in an upright position? How the upright position for the prime mover would be defined? Having a vertical main shaft perpendicular to the ground surface? Or having an horizontal main shaft parallel to the ground surface?

✓ In claim 27, is the tube over the column? Is the column inside the surrounding tube? In which way is the tube extending? Axially?

✓ In claim 28, the prime mover is disclosed that it generates power when it is submerged, what about the times when it is not submerged (see figure 1)?

✓ In claim 29, are the means for generating electricity optional since the apparatus has pumps, a crank arrangement "or means for generating electricity"?

In claim 30, what is considered a "higher level"? What is the level been compared to?

✓ In claim 38, how is the turbine rotating in the same direction if the flow of fluid going into and out of the tank goes in opposite direction?

✓ In claim 42, what is the "means provided for that purpose"? The prime mover? The control members, etc?

✓ In claim 44, how are the cylindrical members rotated? Are the ducts 26 in figure 1 been rotated, flip up side down?

✗ Claims 42-44 are improper depended claims since the claims 42-44 are method claims and depend on an apparatus claim. The method could apply to a different device other than the one disclosed in claim 1 and the device disclosed in claim 1 could have different methods other than the ones disclosed in claims 42-44.

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-14, 16, 19, 23, 28, 32, 42 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Cockerell.

Cockerell discloses a prime mover having a body with control members 87 protruding from the side of the body and oscillating vertically (see figure 25). Also, Cockerell discloses that pumps for pumping air or water can be used in prime movers.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 6, 17, 18, 20-22, 24, 25 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cockerell in view of Tsubota.

Cockerell discloses a prime mover having a body with control members 87 protruding from the side of the body and oscillating vertically (see figure 25). Also, Cockerell discloses that pumps for pumping air or water can be used in prime movers. However, Cockerell does not disclose a convex body for the buoyant.

On other hand, Tsubota discloses for the purpose of accelerating the linear flow of water, a convex body 12 which oscillates vertically (see figures 5, 6). Moreover, the device is moored using cables (see figure 22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a prime mover as disclosed by Cockerell and to modify the invention by using a convex body for the purpose of accelerating the linear flow of water as disclosed by Tsubota.

17. Claims 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cockerell in view of Woodbridge.

Cockerell discloses a prime mover having a body with control members 87 protruding from the side of the body and oscillating vertically (see figure 25). Also, Cockerell discloses that pumps for pumping air or water can be used in prime movers. However, Cockerell does not disclose using a magnet and coil.

On the other hand, Woodbridge discloses for the purpose of producing electricity efficiently without the use of expensive machinery, a coil 36, magnet 34 which produce a magnetic field due to the vertical movement of the device 20 (see figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a prime mover as disclosed by Cockerell and to modify the invention by using a coil and a magnet for the purpose of producing electricity efficiently without the use of expensive machinery as disclosed by Woodbridge.

18. Claims 15, 26, 27, 30, 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cockerell in view of Woodbridge and Wallace.

Cockerell discloses a prime mover having a body with control members 87 protruding from the side of the body and oscillating vertically (see figure 25). Also, Cockerell discloses that pumps for pumping air or water can be used in prime movers. However, Cockerell does not disclose using a magnet and coil.

On the other hand, Woodbridge discloses for the purpose of producing electricity efficiently without the use of expensive machinery, a coil 36, magnet 34 which produce a magnetic field due to the vertical movement of the device 20 (see figure 1). However, neither Cockerell nor Woodbridge disclose the use of rotatable circular structures.

On the other hand, Wallace discloses for the purpose of utilizing to the maximum advantage a prime mover in shoal waters, turbines 138, pumps 140, ducts 126, the prime mover been moored to a column (see figure 3), an extending tube surrounding the column (see figures 4, 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a prime mover as disclosed by Cockerell and to modify

the invention by using a coil and a magnet for the purpose of producing electricity efficiently without the use of expensive machinery as disclosed by Woodbridge.

19. Claims 31 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cockerell in view of Woodbridge and Youssef.

Cockerell discloses a prime mover having a body with control members 87 protruding from the side of the body and oscillating vertically (see figure 25). Also, Cockerell discloses that pumps for pumping air or water can be used in prime movers. However, Cockerell does not disclose using a magnet and coil.

On the other hand, Woodbridge discloses for the purpose of producing electricity efficiently without the use of expensive machinery, a coil 36, magnet 34 which produce a magnetic field due to the vertical movement of the device 20 (see figure 1). However, neither Cockerell nor Woodbridge disclose a wind generator.

On the other hand, Youssef discloses for the purpose of reducing the cost of converting wind energy into electricity, a wind generator which is driven by air (see figures 1, 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a prime mover as disclosed by Cockerell and to modify the invention by using a coil and a magnet for the purpose of producing electricity efficiently without the use of expensive machinery as disclosed by Woodbridge and to use a water in combination with a wind generator for the purpose of reducing the cost of converting wind energy into electricity as disclosed by Youssef.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

February 22, 2002


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